

## B. Yummy Triangular Pizza

### [Description]

Pizzahat has released a new pizza with triangular shaped pieces. This pizza is composed of some equal-sized equilateral triangle. Moreover, all the triangles are connected. Also, if two triangles are directly connected, they must share a common edge.

How many different shapes of this kind of N-pieces pizza are there? Two patterns are considered as same if they can completely overlap after rotation and shifting (note that flipping is not included).

### [Input]

There are multiple test cases. The first line of input contains a single integer denoting the number of test cases.

For each test case, there is only one line with only one integer N denoting the number of pieces that can be used. ( $1 \leq N \leq 16$ )

### [Output]

For each test case, output a single integer denoting the number of possible different shapes of the pizza.

### [Sample Input]

3  
2  
4  
10

### [Sample Output]

Case #1: 1  
Case #2: 4  
Case #3: 866

